Clint Smith

Software Engineer

Profile

I'm a software engineer passionate about solving meaningful problems and delivering high-quality, maintainable solutions. As an individual contributor, I thrive in roles that focus on technical problem-solving and detailed challenges while collaborating with teammates to achieve shared goals.

I'm at my best in environments with clear priorities and well-defined objectives, where I can dive deep into technical work and contribute tangible results. I enjoy mentoring team members, sharing expertise, and delivering thoughtful, well-executed solutions that make a measurable impact.

My ideal workplace is collaborative, supportive, and focused on meaningful work. I value strong leadership, teamwork without ego, and opportunities to concentrate on the aspects of engineering I love most.

Address

New Smyrna Beach, 32168

Email

clint.smith@protonmail.com

Phone

(786) 309-4871

Skills

Python
Django
Django Rest Framework
Go (Programming Language)
Backend Development
Celery
Microservices Architecture
Temporal
Postgresql
Git

LinkedIn: https://www.linkedin.com/in/clintsmithmaui/

Employment History

Sr. Backend Engineer at Included Health

October 2017 — November 2024

Practice Management Engineering Team Worked on the Practice Management engineering team to transition from legacy technology to a modern, microservice-oriented architecture. This project replaced an outdated in-house EHR (Electronic Health Record) with a third-party system, enabling integration and greater flexibility for future innovation.

- Developed and maintained **Golang microservices** to streamline practitioner management, scheduling/availability, and data synchronization between legacy systems and the EHR.
- Implemented **Temporal workflows** to manage complex interactions with 3rd-party EHR such as appointment booking, patient creation, and on-demand routing. Workflows were often hooked into Kafka events to trigger as a result of new messages on the queue. Additionally, leveraged the **actor pattern** for durable execution and visibility into on-demand routing logic.
- Implemented **gRPC endpoints** for appointment booking, practitioner scheduling/availability, and data synchronization, enabling efficient and scalable inter-service communication.

- Debugged and resolved a critical routing issue where status was being overwritten, enabling stable call routing in preparation for our **production launch**.
- Monitored and analyzed **endpoint latency** using **Prometheus** and **Grafana**, ensuring acceptable performance while scaling practitioner availability systems from 200 to 1,500 providers.
- Collaborated with another team to assess scheduling endpoint performance, proposing and validating fallback strategies for scalability.
- Identified and resolved a critical **department ID mismatch** during on-call duties, unblocking practitioners and maintaining provider trust through direct follow-up.
- Migrated multiple backend services to **Fx**, simplifying dependency injection and improving system maintainability.
- Wrote **acceptance tests** for practitioner availability functionality, ensuring reliable and consistent operations.
- Used an in-house test harness to establish groundwork for on-demand routing acceptance tests, enabling future readiness despite current infrastructure limitations.
- Ensured high-quality unit testing, achieving an **80% test coverage threshold** for key services. Used **Mockery** to create mocks when writing unit tests, ensuring robust and isolated testing of individual components.
- Maintained system health with **OpsLevel**, **Dependabot**, and **Rollbar**, reducing **MTTR** for critical production issues.

Clinical Engineering Team Contributed to transforming clinical workflows and enhancing the provider and patient experience through innovative tools and efficient backend systems. Over six years, collaborated with cross-functional teams to deliver solutions that supported high-quality care delivery.

- Built and maintained tools using **Python, Django,** and **Django Rest Framework**, enabling providers to access and manage patient information efficiently.
- Developed automation workflows with **Celery**, including **member health summaries** integration for patient preparation and **autocoding medications and allergies**, significantly reducing manual overhead and ensuring data accuracy.
- Upgraded email communication systems from **SendGrid** to **ExactTarget-** , improving reliability and scalability.
- Serialized **clinical data snapshots** into the database during chart sign-off, ensuring reliable and accurate historical record-keeping.
- Designed and implemented a full-stack **Provider Payment Report Generation tool** with **Python/Django, HTML/CSS, JavaScript,** and **S3 Storage**, automating financial reporting for providers.
- Led and contributed to the **Chart Access** project, enhancing provider accessibility to patient charts and supporting seamless care delivery:
    - **Phase 1**: Enabled provider access to patient charts regardless of appointment status, improving care continuity during emergencies, absences, or transitions.
    - **Phase 2**: Expanded Chart Access to care coordinators, improving their ability to assist providers and manage patient cases.
    - **Phase 3**: Scoped and planned the **Unified Encounter Service**, creating a foundation to unify legacy and video visit encounters under a single system with unique identifiers for all past and future visits.
    - **Phase 4**: Unimplemented, but the planned and scoped the association of all past and future **Lab Orders, Radiology,** and **Prescriptions** with the Unified Encounter, eliminating redundant references in the database and ensuring seamless integration across systems.

- Played a key role in reviving the **Panel Management** project, resolving critical performance issues:
  - Optimized backend filtering and data aggregation to enable care coordinators and providers to efficiently manage patient populations based on customizable criteria.
  - Salvaged the project's initial strategy and implemented solutions to ensure a successful release.
- Enhanced **Lab Order handling** in alignment with **CURES Act** compliance, ensuring timely and automated release of lab reports:
  - Identified and resolved critical issues with lab report statuses, improving the accuracy of auto-release processes and ensuring compliance with federal requirements.
  - Collaborated with engineers to troubleshoot and optimize workflows, supporting providers with accurate and timely patient lab results.
- Supported junior engineers by providing guidance and sharing knowledge to foster their professional growth.

Software Engineer at Business Information Technology Solutions (BITS), LLC

October 2015 — October 2017

Subsequent Military Health Contracts

Surveyed and documented current innovation barriers in the Defense Health Agency. Alongside a small team, designed and implemented a prototype web application to reduce the startup overhead often associated with new development teams.

Prototype Microservices Implementation

Implemented prototype microservices, utilizing Python and Falcon Framework. These microservices facilitated the integration of legacy clinical data and medical device data with modern FHIR Server based EHR systems like MHS Genesis and Cerner Millennium.

Software Engineer at THAOINC

October 2014 — September 2015

In the capacity of Software Engineer at THAOINC, the primary focus was on the Optimal Vision Care Prototype (OVCP). Collaborating with healthcare professionals led to significant improvements in the prototype design. The implementation of a structured data entry control streamlined data handling and enhanced user experience.

- Worked closely with physicians to refine design methodologies based on user feedback.
- Introduced a structured input mechanism that improved data entry efficiency and accuracy.
- Facilitated usability testing, leading to a remarkable 66% improvement in user satisfaction scores.

Software Developer at HNu Photonics

June 2012 — October 2014

Investor Engagement: Improved investor appeal for acquired microfluidics technology by enhancing legacy C# code, adding features, and optimizing functionality to showcase its potential.

Technology Design Enhancement: Collaborated with scientists and engineers to identify and address design limitations in microfluidics technology through experimentation.

Software Development Practices: Established structured software development methodologies to boost efficiency and productivity within the company.

Software Developer at Dynamic Concepts

August 2011 — May 2012

Meeting Delivery Time: Contributed to meeting the delivery time of a Plasma Etching control system by documenting interfaces and collaborating with the Architect to complete the UI using C#. This ensured timely delivery of the project while maintaining high standards of quality and functionality.

Elevated Company Image: Showcased and elevated the company image by developing a new website that reflected the professionalism of the organization. The website design emphasized the company's brand identity and enhanced its online presence, leaving a positive impression on visitors.

Security Systems Technician at Security Tech, Kīhei, HI

January 2011 — September 2011

Exemplary Customer Care: Provided outstanding customer service by seamlessly installing, repairing, and maintaining residential and commercial security systems, with a specialized focus on sophisticated security camera systems. Managed all aspects of the process, from running wiring in new and existing structures to programming, setup, and thorough demonstrations for customers.

Technical Expertise and Communication: Utilized technical expertise to program and configure systems, ensuring optimal functionality and performance. Effectively communicated complex concepts to customers during demonstrations, empowering them to maximize the benefits of their security systems.

Respectful Resolution: Demonstrated adeptness in handling challenging situations with grace and professionalism, effectively addressing concerns and satisfying even the toughest customers while upholding respect and integrity.

Software Developer Consultant at Adaptive Technologies Corp, Kīhei, HI

January 2009 — January 2011

Enhanced Battery Metrics Legibility: Crafted a cross-platform solution using C++ and Qt to parse serial data from a Battery Management System, significantly improving the legibility of battery metrics. The user-friendly interface streamlined data interpretation for enhanced usability.

Radiometric Simulation Streamlining: Streamlined complex radiometric simulation calculations from a cumbersome spreadsheet to a user-friendly interface. Introduced a cross-platform C++ library that revolutionized the calculation process, enhancing efficiency and accessibility.

Mobile Application Developer (iOS) at Launchcore, Inc., Kīhei, HI

August 2008 — January 2009

Swiftly acquired expertise in mobile development and collaborated with content creators to successfully launch two engaging mobile gaming applications for children within a span of six months:

 Jingle Jumble
 Jumbalu Zoo

Utilized Objective-C and the iOS Development platform for development. Skills and technologies include: Objective-C Programming, iOS SDK, Xcode IDE, App Store Deployment, Apple Sound Libraries, User Interface Design, Collaboration and Communication

Software Developer at Textron Defense Systems, Kīhei, HI

June 2004 — June 2008

- Supported contracts with UI development: Using Microsoft Foundation Classes (MFC), C++, and TCL, supported contracts by developing UI applications to control optical systems, including modifying C DLLs to integrate VxWorks realtime system with LabView frontend, mirror automation, photon detection sensor systems, and automatic camera gain control.
- Successfully replaced signal digitizers: Having no prior experience with embedded hardware, successfully replaced signal digitizers with a Pentek product and integrated them into a sophisticated data acquisition system used for laser radar operations.
- Improved Laser Safety System by reprogramming the PLC Ladder Logic.

Sr. Electro-Optic Technician at Textron Defense Systems, Kīhei, HI

February 2000 — June 2004

- Ensured the success of our team missions by performing maintenance and operation of all systems pertaining to satellite missions with a CO2 Laser Radar system.
- Duties included laser alignment, alignment of complex optical systems used in the receiver, laser maintenance, system operation, and data gathering.

Laser Service Engineer at Trumpf, Inc., Dallas, TX

October 1997 — December 2000

Installed, maintained, and repaired multiple-kilowatt CO2 Laser Cutting Systems at customer sites nationwide. Led installation processes, including directing riggers, anchoring, unpacking, re-energizing, alignment, testing, and providing on-site customer training.

Engaged in extensive customer interaction, fostering strong relationships and managing expectations regarding project timelines and completion dates. Traveled to customer sites to troubleshoot and resolve issues, ensuring maximum productivity and satisfaction.

Manufacturing Technician at Intel, Chandler, AZ

September 1996 — October 1997

Meticulously operated die attach machines and cure ovens, which were a vital precursor to adhering the delicate chips, sourced from sawn wafers, onto packages before wire bonding.

Embraced the challenge of nightly shifts lasting up to 12 hours, ensuring the seamless execution of each step in the assembly process.

Education

Regis University at Denver, CO

January 2016 — January 2018

Continuing Education in Computer Science
Completed extensive coursework in computer science, including programming, algorithms, data structures, and software development. Focused on building a strong foundation in core concepts and practical applications.

Texas State Technical College at Waco, TX

Associate's Degree
January 1994 — December 1996

Laser Electro-Optics

Specialized in the principles and applications of lasers, optics, and electro-optical systems. Gained hands-on experience in laser alignment, optical systems, and advanced technologies used in industrial and research settings.